

MPB

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/996,292A

Input Set : A:\ISIS4804.ST25.txt
Output Set: N:\CRF3\04242002\I996292A.raw

DATE: 04/24/2002
TIME: 11:02:59

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2853

MAY -2 2002
2850 MAIL ROOM

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MAY -3 2002

TECHNOLOGY DIVISION 2800

3 <110> APPLICANT: Manoharan, Muthiah
4 Maier, Martin A.
5 Prakash, Thazha P.
6 Rajeev, Kallanthottathil Gopalan
8 <120> TITLE OF INVENTION: Nuclease Resistant Chimeric Oligonucleotides
10 <130> FILE REFERENCE: ISIS-4804
12 <140> CURRENT APPLICATION NUMBER: 09/996,292A
13 <141> CURRENT FILING DATE: 2001-09-28
15 <160> NUMBER OF SEQ ID NOS: 55
17 <170> SOFTWARE: PatentIn version 3.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 20
21 <212> TYPE: DNA
22 <213> ORGANISM: Artificial Sequence
24 <220> FEATURE:
25 <223> OTHER INFORMATION: Completely synthetic sequence
27 <220> FEATURE:
28 <221> NAME/KEY: misc_feature
29 <222> LOCATION: (1)..(20)
30 <223> OTHER INFORMATION: All P=S
33 <220> FEATURE:
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35 <222> LOCATION: (1)..(1)
36 <223> OTHER INFORMATION: N= L-Thymidine
39 <220> FEATURE:
40 <221> NAME/KEY: misc_feature
41 <222> LOCATION: (20)..(20)
42 <223> OTHER INFORMATION: N= L-Thymidine
45 <400> SEQUENCE: 1

W--> 46 ngcatcccc aggccaccan
49 <210> SEQ ID NO: 2
50 <211> LENGTH: 17
51 <212> TYPE: DNA
52 <213> ORGANISM: Artificial Sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: Completely synthetic sequence
57 <220> FEATURE:
58 <221> NAME/KEY: misc_feature
59 <222> LOCATION: (1)..(17)
60 <223> OTHER INFORMATION: All P=S
63 <220> FEATURE:
64 <221> NAME/KEY: misc_feature
65 <222> LOCATION: (1)..(1)

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66 <223> OTHER INFORMATION: N= L-Thymidine
 69 <220> FEATURE:
 70 <221> NAME/KEY: misc_feature
 71 <222> LOCATION: (2)..(3)
 72 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
 75 <220> FEATURE:
 76 <221> NAME/KEY: misc_feature
 77 <222> LOCATION: (15)..(15)
 78 <223> OTHER INFORMATION: N= 2'-O-MOE A
 81 <220> FEATURE:
 82 <221> NAME/KEY: misc_feature
 83 <222> LOCATION: (16)..(16)
 84 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
 87 <220> FEATURE:
 88 <221> NAME/KEY: misc_feature
 89 <222> LOCATION: (17)..(17)
 90 <223> OTHER INFORMATION: N= L-Thymidine
 93 <400> SEQUENCE: 2
 W--> 94 nnncgctgtg atgcnnn
 97 <210> SEQ ID NO: 3
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 99 <212> TYPE: DNA
 100 <213> ORGANISM: Artificial Sequence
 102 <220> FEATURE:
 103 <223> OTHER INFORMATION: Completely synthetic sequence
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 106 <221> NAME/KEY: misc_feature
 107 <222> LOCATION: (1)..(20)
 108 <223> OTHER INFORMATION: All P=S
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 114 <223> OTHER INFORMATION: N= L-Thymidine
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 119 <222> LOCATION: (2)..(3)
 120 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
 123 <220> FEATURE:
 124 <221> NAME/KEY: misc_feature
 125 <222> LOCATION: (13)..(14)
 126 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
 129 <220> FEATURE:
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 131 <222> LOCATION: (15)..(15)
 132 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
 135 <220> FEATURE:
 136 <221> NAME/KEY: misc_feature
 137 <222> LOCATION: (16)..(16)
 138 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC

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141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (17)..(17)
144 <223> OTHER INFORMATION: N= 2'-O-MOE A
147 <220> FEATURE:
148 <221> NAME/KEY: misc_feature
149 <222> LOCATION: (18)..(19)
150 <223> OTHER INFORMATION: N= 2'-O-MOE G
153 <220> FEATURE:
154 <221> NAME/KEY: misc_feature
155 <222> LOCATION: (20)..(20)
156 <223> OTHER INFORMATION: N= L-Thymidine
159 <400> SEQUENCE: 3
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163 <210> SEQ ID NO: 4
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165 <212> TYPE: DNA
166 <213> ORGANISM: Artificial Sequence
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169 <223> OTHER INFORMATION: Completely synthetic sequence
171 <220> FEATURE:
172 <221> NAME/KEY: misc_feature
173 <222> LOCATION: (1)..(20)
174 <223> OTHER INFORMATION: All P=S
177 <400> SEQUENCE: 4
178 tgcaccccc aggccaccat 20
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183 <212> TYPE: DNA
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190 <221> NAME/KEY: misc_feature
191 <222> LOCATION: (1)..(20)
192 <223> OTHER INFORMATION: All P=S
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203 <222> LOCATION: (20)..(20)
204 <223> OTHER INFORMATION: N= L-Thymidine
207 <400> SEQUENCE: 5
W--> 208 ngcatccccc aggccaccan 20
211 <210> SEQ ID NO: 6
212 <211> LENGTH: 17
213 <212> TYPE: DNA

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214 <213> ORGANISM: Artificial Sequence
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Completely synthetic sequence
219 <220> FEATURE:
220 <221> NAME/KEY: misc_feature
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238 <221> NAME/KEY: misc_feature
239 <222> LOCATION: (1)..(17)
240 <223> OTHER INFORMATION: All P=S
243 <220> FEATURE:
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245 <222> LOCATION: (1)..(1)
246 <223> OTHER INFORMATION: N= L-Thymidine
249 <220> FEATURE:
250 <221> NAME/KEY: misc_feature
251 <222> LOCATION: (2)..(3)
252 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
255 <220> FEATURE:
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257 <222> LOCATION: (15)..(15)
258 <223> OTHER INFORMATION: N= 2'-O-MOE A
261 <220> FEATURE:
262 <221> NAME/KEY: misc_feature
263 <222> LOCATION: (16)..(16)
264 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (17)..(17)
270 <223> OTHER INFORMATION: N= L-Thymidine
273 <400> SEQUENCE: 7
W--> 274 nnnccgctgtg atgcnnn
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278 <211> LENGTH: 20
279 <212> TYPE: DNA
280 <213> ORGANISM: Artificial Sequence
282 <220> FEATURE:
283 <223> OTHER INFORMATION: Completely synthetic sequence
285 <220> FEATURE:
286 <221> NAME/KEY: misc_feature

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287 <222> LOCATION: (1)..(20)
 288 <223> OTHER INFORMATION: All P=S
 291 <220> FEATURE:
 292 <221> NAME/KEY: misc_feature
 293 <222> LOCATION: (1)..(1)
 294 <223> OTHER INFORMATION: N= L-Cytidine
 297 <220> FEATURE:
 298 <221> NAME/KEY: misc_feature
 299 <222> LOCATION: (2)..(2)
 300 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
 303 <220> FEATURE:
 304 <221> NAME/KEY: misc_feature
 305 <222> LOCATION: (3)..(3)
 306 <223> OTHER INFORMATION: N= 2'-O-MOE A
 309 <220> FEATURE:
 310 <221> NAME/KEY: misc_feature
 311 <222> LOCATION: (4)..(4)
 312 <223> OTHER INFORMATION: N= 2'-O-MOE G
 315 <220> FEATURE:
 316 <221> NAME/KEY: misc_feature
 317 <222> LOCATION: (5)..(5)
 318 <223> OTHER INFORMATION: N= 2'-O-MOE A
 321 <220> FEATURE:
 322 <221> NAME/KEY: misc_feature
 323 <222> LOCATION: (16)..(16)
 324 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
 327 <220> FEATURE:
 328 <221> NAME/KEY: misc_feature
 329 <222> LOCATION: (17)..(17)
 330 <223> OTHER INFORMATION: N= 2'-O-MOE 5meC
 333 <220> FEATURE:
 334 <221> NAME/KEY: misc_feature
 335 <222> LOCATION: (18)..(18)
 336 <223> OTHER INFORMATION: N= 2'-O-MOE G
 339 <220> FEATURE:
 340 <221> NAME/KEY: misc_feature
 341 <222> LOCATION: (19)..(19)
 342 <223> OTHER INFORMATION: N= 2'-O-MOE 5meU
 345 <220> FEATURE:
 346 <221> NAME/KEY: misc_feature
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 351 <400> SEQUENCE: 8

W--> 352 mmmnttcca cactcnnnnn

20

355 <210> SEQ ID NO: 9
 356 <211> LENGTH: 20
 357 <212> TYPE: DNA
 358 <213> ORGANISM: Artificial Sequence
 360 <220> FEATURE:

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/996,292A

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Input Set : A:\ISIS4804.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 1,20
Seq#:2; N Pos. 1,2,3,15,16,17
Seq#:3; N Pos. 1,2,3,13,14,15,16,17,18,19,20
Seq#:5; N Pos. 1,20
Seq#:7; N Pos. 1,2,3,15,16,17
Seq#:8; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:9; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:10; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:11; N Pos. 10,11,12,13,14,16,17,18,19,20
Seq#:12; N Pos. 1,10,11,12,13,14,16,17,18,19,20
Seq#:13; N Pos. 9,10,11,12,20
Seq#:14; N Pos. 1,9,10,11,12
Seq#:15; N Pos. 1,9,10,11,12,20
Seq#:16; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:17; N Pos. 10,11,12,13,14,16,17,18,19,20
Seq#:18; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:19; N Pos. 10,11,12,13,14,15,16,17,18,19,20
Seq#:20; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:21; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:22; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:23; N Pos. 1,2,3,4,5,6,17,18,19,20,21
Seq#:24; N Pos. 10,11,12,13,14,15,16,17,18,19,21
Seq#:25; N Pos. 1,11,12,13,14,15,16,17,18,19,20,22
Seq#:26; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:27; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:28; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:29; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:30; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:31; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:32; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:33; N Pos. 1,2,3,4,5,16,17,18,19,20
Seq#:34; N Pos. 5
Seq#:35; N Pos. 5
Seq#:36; N Pos. 5
Seq#:37; N Pos. 9
Seq#:38; N Pos. 2,6
Seq#:39; N Pos. 6,8
Seq#:41; N Pos. 2,6
Seq#:43; N Pos. 4
Seq#:44; N Pos. 8
Seq#:45; N Pos. 11
Seq#:46; N Pos. 12
Seq#:47; N Pos. 13
Seq#:48; N Pos. 14

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Seq#:49; N Pos. 15
Seq#:51; N Pos. 1
Seq#:52; N Pos. 20
Seq#:53; N Pos. 1,20
Seq#:54; N Pos. 19
Seq#:55; N Pos. 19

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L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:46 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:352 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:430 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:508 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:574 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:646 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:694 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:940 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:1018 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:1084 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:1162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:1240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:1318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:1402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:1468 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:1540 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:1619 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:1699 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:1778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:1858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:1936 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:2014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:2092 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:2172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:2190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
L:2208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35 after pos.:0
L:2226 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36 after pos.:0
L:2244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:2268 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:2292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:2328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:2370 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:2394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:2418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:2442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:2466 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:2490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:2514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
L:2544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:0
L:2562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:0

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L:2586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:0
L:2604 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:0
L:2622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:0